

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Gerald Chan on June 7, 2010.

The application has been amended as follows:

Claims 2, 13, 37, 41, 55, 59, 60, 64, and 65 are now **cancelled**.

**Claim 1** is amended as follows:

A method for predicting the behavior of a workload across a plurality of nodes, the method comprising:

- a) receiving a workload to be executed;
- b) executing the workload on a single node before the workload is sent to a plurality of nodes for execution, wherein at least part of the act of executing is performed using a processor;
- c) tracing the execution of the workload on the single node to identify a potential data conflict, wherein the potential data conflict comprises a potential conflict in the data, and is for computing costs of migrating the workload to a distributed system.

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and wherein the act of identifying potential data conflicts comprises predicting how many data conflicts will occur;

d) based on a result of the tracing, predicting the behavior of the workload across the plurality of nodes; and

e) outputting the prediction.

**Claim 14** (renumbered as claim 13) is amended as follows:

A method for distributing a workload across a plurality of nodes, the method comprising:

a) receiving a workload to be executed;

b) executing the workload on a single node before the workload is sent to a plurality of nodes for execution, wherein at least part of the act of executing is performed using a processor;

c) tracing the execution of the workload on the single node to identify a potential data conflict, wherein the potential data conflict comprises a potential conflict in the data, and is for computing costs of migrating the workload to a distributed system,  
and wherein the act of identifying potential data conflicts comprises predicting how many data conflicts will occur;

d) based on a result of the tracing, forming a workload distribution scheme that distributes the workload across the plurality of nodes; and

e) outputting the workload distribution scheme.

**Claim 32** is amended as follows:

A computer program product that includes a ~~volatile or non-volatile~~ non-transitory computer-useable medium usable by a processor, the medium comprising a sequence of instructions which, when executed by said processor, causes said processor to execute a process for optimizing the distribution of a workload across a plurality of nodes, the process comprising:

- a) receiving a workload to be executed;
- b) executing the workload on a single node before the workload is sent to a plurality of nodes for execution;
- c) tracing the execution of the workload on the single node to identify a potential data conflict, wherein the potential data conflict comprises a potential conflict in the data, and is for computing costs of migrating the workload to a distributed system, and wherein the act of identifying potential data conflicts comprises predicting how many data conflicts will occur;
- d) based on a result of the tracing, optimizing the distribution of the workload across the plurality of nodes; and
- e) outputting the optimized distribution scheme.

**Claim 33** (renumbered as claim 37) is amended as follows:

A computer program product that includes a ~~volatile or non-volatile~~ non-transitory computer-useable medium usable by a processor, the medium comprising a sequence of instructions which, when executed by said processor, causes said processor to

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execute a process for distributing a workload across a plurality of nodes, the process comprising:

- a) receiving a workload to be executed;
- b) executing the workload on a single node before the workload is sent to a plurality of nodes for execution;
- c) tracing the execution of the workload on the single node to identify a potential data conflict, wherein the potential data conflict comprises a potential conflict in the data, and is for computing costs of migrating the workload to a distributed system, and wherein the act of identifying potential data conflicts comprises predicting how many data conflicts will occur;
- d) based on a result of the tracing, forming a workload distribution scheme that distributes the workload across the plurality of nodes; and
- e) outputting the workload distribution scheme.

**Claim 34** (renumbered as claim 44) is amended as follows:

A system for distributing a workload across a plurality of nodes, comprising:

- a) means for receiving a workload to be executed;
- b) means for executing the workload on a single node before the workload is sent to a plurality of nodes for execution, wherein the means for executing comprises a processor;
- c) means for tracing the execution of the workload on the single node to identify a potential data conflict, wherein the potential data conflict comprises a

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potential conflict in the data, and is for computing costs of migrating the workload to a distributed system, and wherein the means for tracing is configured to predict how many data conflicts will occur;

- d) means for, based on a result of the tracing, forming a workload distribution scheme that distributes the workload across the plurality of nodes; and
- e) means for outputting the workload distribution scheme.

**Claim 35** (renumbered as claim 51) is amended as follows:

A system for optimizing the distribution of a workload across a plurality of nodes, comprising:

- a) means for receiving a workload to be executed;
- b) means for executing the workload on a single node before the workload is sent to a plurality of nodes for execution, wherein the means for executing comprises a processor;
- c) means for tracing the execution of the workload on the single node to identify a potential data conflict, wherein the potential data conflict comprises a potential conflict in the data, and is for computing costs of migrating the workload to a distributed system, and wherein the means for tracing is configured to predict how many data conflicts will occur;
- d) means for optimizing the distribution of the workload across the plurality of nodes based on a result of the tracing; and
- e) means for outputting the optimized distribution scheme.

**Claim 36** (renumbered as claim 54) is amended as follows:

A computer program product that includes a ~~volatile or non-volatile~~ non-transitory computer-useable medium usable by a processor, the medium comprising a sequence of instructions which, when executed by said processor, causes said processor to execute a process for predicting the behavior of a workload across a plurality of nodes, the process comprising:

- a) receiving a workload to be executed;
- b) executing the workload on a single node before the workload is sent to a plurality of nodes for execution;
- c) tracing the execution of the workload on the single node to identify a potential data conflict, wherein the potential data conflict comprises a potential conflict in the data, and is for computing costs of migrating the workload to a distributed system, and wherein the act of identifying potential data conflicts comprises predicting how many data conflicts will occur;
- d) based on a result of the tracing, predicting the behavior of the workload across the plurality of nodes; and
- e) outputting the prediction.

**Claim 40** (renumbered as claim 58) is amended as follows:

A system for predicting the behavior of a workload across a plurality of nodes, comprising:

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- a) means for receiving a workload to be executed;
- b) means for executing the workload on a single node before the workload is sent to a plurality of nodes for execution, wherein the means for executing comprises a processor;
- c) means for tracing the execution of the workload on the single node to identify a potential data conflict, wherein the potential data conflict comprises a potential conflict in the data, and is for computing costs of migrating the workload to a distributed system, and wherein the means for tracing is configured to predict how many data conflicts will occur;
- d) means for, based on a result of the tracing, predicting the behavior of the workload across the plurality of nodes; and
- e) means for outputting the prediction.

**Claim 54** (renumbered as claim 62) is amended as follows:

A method for optimizing the distribution of a workload across a plurality of nodes, the method comprising:

- a) receiving a workload to be executed;
- b) executing the workload on a single node before the workload is sent to a plurality of nodes for execution, wherein at least part of the act of executing is performed using a processor;
- c) tracing the execution of the workload on the single node to identify a potential data conflict, wherein the potential data conflict comprises a potential conflict

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in the data, and is for computing costs of migrating the workload to a distributed system, and wherein the act of identifying potential data conflicts comprises predicting how many data conflicts will occur;

- d) based on a result of the tracing, optimizing the distribution of the workload across the plurality of nodes; and
- e) outputting the optimized distribution scheme.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AVI GOLD whose telephone number is (571)272-4002. The examiner can normally be reached on M-F 8:30 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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